PENERAPAN MODEL PEMBELAJARAN *LEVELS OF INQUIRY* MENGGUNAKAN KOMBINASI PRAKTIKUM NYATA-MAYA UNTUK MENINGKATKAN KEMAMPUAN KOGNITIF DAN KETERAMPILAN PROSES SAINS SISWA PADA MATERI RANGKAIAN LISTRIK ARUS SEARAH

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ABSTRAK

Telah dilakukan penelitian tentang penerapan model pembelajaran *levels of inquiry* menggunakan kombinasi praktikum nyata-maya pada materi rangkaian listrik arus searah. Tujuan penelitian ini adalah untuk mendapatkan gambaran tentang peningkatan kemampuan kognitif dan keterampilan proses siswa SMA sebagai efek dari penerapan model pembelajaran *levels of inquiry* yang menggunakan kombinasi praktikum nyata-maya pada materi rangkaian listrik arus searah. Penelitian ini dilatarbelakangi oleh adanya kesenjangan tujuan pembelajaran yang harus dicapai siswa den gan kondisi nyata di lapangan. Penelitian ini dilakukan di kelas X di salah satu SMA negeri di kota Subang dengan metode *pre-eksperimental* dan desain *one-group pretest-posttest design*. Hasil penelitian menunjukkan bahwa setelah mendapatkan pembelajaran model pembelajaran *levels of inquiry* dengan kombinasi praktikum nyata-maya : 1) Kemampuan kognitif siswa pada materi rangkaian listrik arus searah meningkat dengan kategori sedang; 2) Keterampilan proses siswa pada materi rangkaian listrik arus searah meningkat dengan kategori tinggi; dan 3) Hampir seluruh siswa menyatakan bahwa siswa mendapatkan nuansa dan proses pembelajaran yang berbeda, merasa termotivasi dalam pembelajaran fisika, dan merasa terbantu dalam meningkatkan kemampuan kogntif dan keterampilan proses sains.

Kata kunci : *levels of inquiry*, kombinasi praktikum nyata-maya, kemampuan kognitif, dan keterampilan proses sains.

IMPLEMENTATION LEVELS OF INQUIRY LEARNING MODEL USING A COMBINATION REAL-VIRTUAL EXPERIMENT TO IMPROVE STUDENTS COGNITIVE ABILITY AND SCIENCE PROCESS SKILLS OF DIRECT CURRENT ELECTRIC CIRCUITS

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ABSTRACT

It has been conducted research on the application of levels of inquiry learning model using a combination real-virtual experiment of direct current electrical circuit. The objective of this research is to get an overview about the increase in student cognitive abilities and science process skills as the effect of the application of levels of inquiry learning model which uses a combination of real-virtual experiment of direct current electrical circuit. The research was motivated by the gap of learning objectives that must be achieved by students with real conditions in classroom. This research was conducted in class X in one of the public high school in Subang with pre-experimental method and one-group pretest-posttest design. The results showed that after getting the learning with levels of inquiry learning model with a combination of real-virtual experiment: 1) cognitive ability students on direct current electric circuit increases students with moderate category; 2) science process skills of students of direct current electric circuit increases with high category; and 3) Almost all of the students stated that students get a feel and a different learning process, feel motivated in learning physics, and was helped in improving their cognitive abilities and science process skills.

Keywords: levels of inquiry, the combination of real-virtual experiment, cognitive ability, and science process skills.